

WHAT IS CLAIMED IS:

1 1. A radio access network having a first communication
2 protocol, said radio access network defining first cells at least some of
3 which neighbor foreign cells employing a foreign communication
4 protocol different from said first communication protocol, said foreign
5 communication protocol associated with a foreign communication
6 system, the radio access network comprising:

7 radio access network node structure for communicating with
8 multi-mode mobile radios in said first cells, and
9 a data mechanism to exchange handover information through
10 said network node structure with said multi-mode radios as said multi-
11 mode radios are to be handed-over to said foreign cells, said data
12 mechanism having a dedicated data mapped structure generic to said
13 radio access network and said foreign communication system such that
14 said generic data mapped structure transports both handover data
15 content unique to said first communication protocol and handover data
16 content unique to said foreign communication protocol.

1 2. A radio access network as in claim 1, wherein the radio
2 access network node fills the dedicated data map structure to include
3 broadcast system information.

1 3. A radio access network as in claim 1, wherein the multi-
2 mode radios fill the dedicated data map structure to include mobile
3 radio capabilities information.

1 4. A radio access network as in claim 1, wherein the radio
2 access network node fills the dedicated data map structure to include
3 neighboring cell information.

1 5. A radio access network as in claim 1, wherein the radio
2 access network node fills the dedicated data map structure to include
3 neighboring cell measurement instructions.

1 6. A radio access network as in claim 1, wherein the mobile
2 radios fill the dedicated data map structure to include neighboring cell
3 measurement results.

1 7. A radio access network as in claim 1, wherein the radio
2 access network node fills the dedicated data map structure to include
3 handoff command information.

1 8. A mobile radio network, comprising:
2 a radio access network having an associated first communication
3 protocol for communicating to multi-mode mobile radios in first cells
4 serviced by said radio access network according to said first
5 communication protocol, and

6 a core network having an associated foreign communication
7 protocol for communicating to multi-mode mobile radios in at least
8 foreign cells neighboring said first cells and serviced by said core
9 network according to said foreign communication protocol, said radio
10 network and said core network being in handoff communication with
11 each other to handoff said mobile radios when said mobile radios
12 commute from one of said first cells to one of said foreign cells,
13 said handoff communication being in accordance with a data
14 mechanism having a dedicated data mapped structure portion that is
15 generic to said radio access network and said core network such that
16 said same generic data mapped structure transports both handover data
17 content unique to said first communication protocol and handover data
18 content unique to said foreign communication protocol.

1 9. A mobile radio network as in claim 8, wherein the radio
2 access network fills the dedicated data map structure to include
3 handoff request information.

1 10. A mobile radio network as in claim 8, wherein the multi-
2 mode mobile radios fill the dedicated data map structure to include
3 mobile radio capabilities information.

1 11. A mobile radio network as in claim 8, wherein the radio
2 access network fills the dedicated data map structure to include
3 neighboring cell information.

1 12. A mobile radio network as in claim 8, wherein the core
2 network fills the dedicated data map structure to include handoff
3 command information.

1 13. A method of exchanging handoff-specific information
2 between a first node in a mobile radio network and a foreign node in
3 the mobile radio network, comprising the steps of:
4 providing a data mechanism having a handoff information
5 dedicated to information identifying handoff characteristics between
6 said first node and said foreign node,
7 receiving at the first node said handoff-specific information, said
8 first node employing a first radio communication protocol type, said
9 foreign node employing a foreign radio communication protocol type
10 different from said first radio communication protocol type,
11 filling said handoff information container with said handoff-
12 specific information in a form particular to said foreign radio
13 communication protocol type, said handoff information container being
14 of a generic structure to transport said handoff-specific information
15 according to both said first communication protocol type and said
16 foreign communication protocol type.

1 14. A method of exchanging handoff-specific information as in
2 claim 13, wherein the handoff information container includes broadcast
3 system information.

1 15. A method of exchanging handoff-specific information as in
2 claim 13, wherein the handoff information container includes mobile
3 radio capabilities information.

1 16. A method of exchanging handoff-specific information as in
2 claim 13, wherein the handoff information container includes
3 neighboring cell information.

1 17. A method of exchanging handoff-specific information as in
2 claim 13, wherein the handoff information container includes
3 neighboring cell measurement instructions.

1 18. A method of exchanging handoff-specific information as in
2 claim 13, wherein the handoff information container includes
3 neighboring cell measurement results.

1 19. A method of exchanging handoff-specific information as in
2 claim 13, wherein the handoff information container includes mobile
3 radio handoff command information.

1 20. A method of exchanging handoff-specific information as in
2 claim 13, further including the steps of
3 exchanging handoff-specific information between core networks
4 associated with, respectively, said first radio communication protocol
5 and said foreign communication protocol, and

6 filling said handoff-specific information container between said
7 core networks with said handoff information in a form particular to
8 said foreign radio communication protocol type.

1 21. A method of exchanging handoff-specific information as in
2 claim 20, wherein the core networks fill the dedicated data map
3 structure to include handoff request information.

1 22. A method of exchanging handoff-specific information as in
2 claim 20, wherein the core networks fill the dedicated data map
3 structure to include mobile radio capabilities information.

1 23. A method of exchanging handoff-specific information as in
2 claim 20, wherein the core networks fill the dedicated data map
3 structure to include neighboring cell information.

1 24. A method of exchanging handoff-specific information as in
2 claim 23, wherein the core networks fill the dedicated data map
3 structure to include handoff command information.

1 25. A mobile radio network as in claim 8, wherein the radio
2 access network fills the dedicated data map structure to include
3 neighboring cell measurement instructions.

1 26. A method of exchanging handoff-specific information as in
2 claim 20, wherein the core networks fill the dedicated data map
3 structure to include neighboring cell measurement instructions.